

How far can they go? Traveling is key for survival and conservation

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Copulation of *Maculinea nausithous* on the foodplant *Sanguisorba officinalis*.
Credit: Dr. Piotr Nowicki

Nowadays, more and more animal habitats are being fragmented, or lost. Many species need assistance and conservation of their environments to survive, and it is important to know the best way this can be achieved. A research team from France, Poland and Germany has determined two butterfly movement strategies and their relative importance.

The study is based on the Bavarian populations of Dusky Large Blue [butterflies](#) (*Maculinea nausithous*). The species is endangered and listed in the [European Union's Habitats Directive](#). The butterflies were marked with waterproof numbers on their wings, in order to be repeatedly observed. The study was published in the [Journal of Animal Ecology](#).



Maculinea nausithous individual marked with a code on its wing. Credit: Dr. Piotr Nowicki

A large part of the movements are made over relatively small distances of a few hundred meters. There were, however, a few individuals (around 2.5%) that travel several kilometres. These movements are used for conservation analyses, because they are important for landscape level effects. The [methodology](#) of the shown approach will help with improving future analysis of similar data, where until now no distinction has been made between long and short distance movements.

More efficient and better recommendations for landscape configuration and design, as well as better conservation methods can be expected from gaining information on the portion of the individuals travelling the long distance. We see this study as a major achievement in this field.

More information: Thomas Hovestadt, Birgit Binzenhöfer, Piotr Nowicki, Josef Settele: Do all inter-patch movements represent dispersal? A mixed kernel study of butterfly mobility in fragmented landscapes. *Journal of Animal Ecology* 80: 1070-1077. [doi: 10.1111/j.1365-2656.2011.01848.x](https://doi.org/10.1111/j.1365-2656.2011.01848.x)

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